

FIG. 1

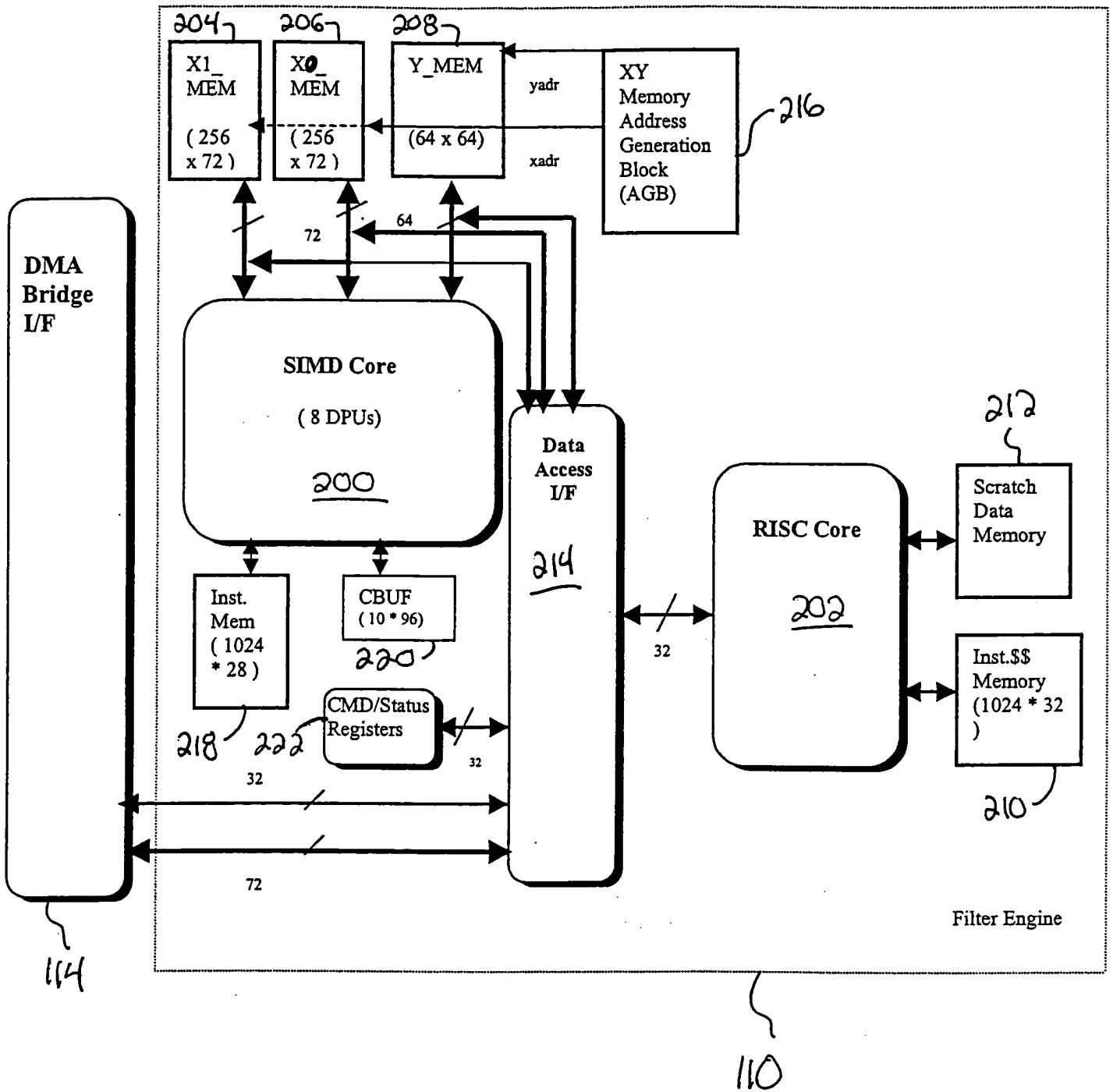


FIG. 2

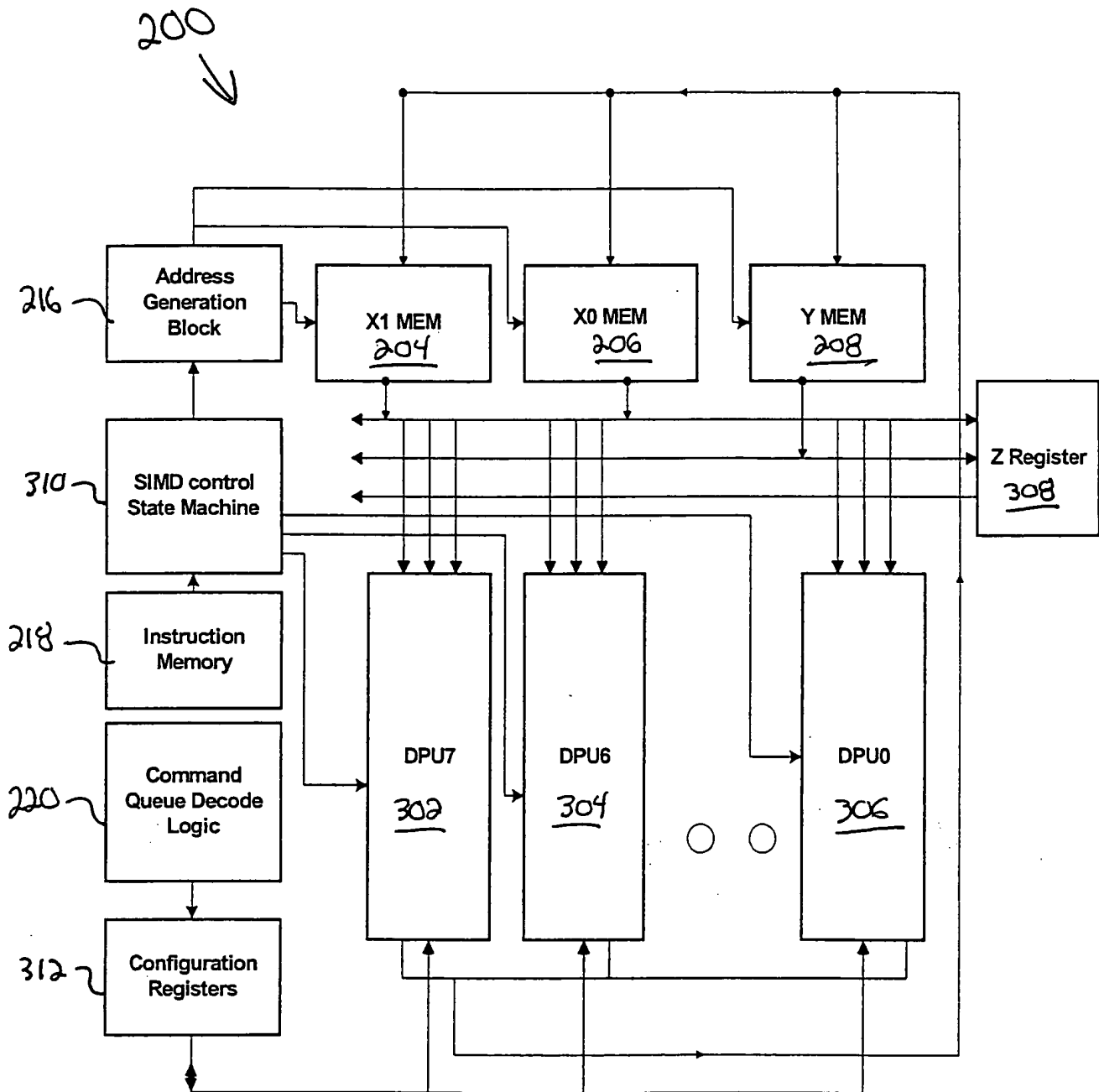


FIG. 3

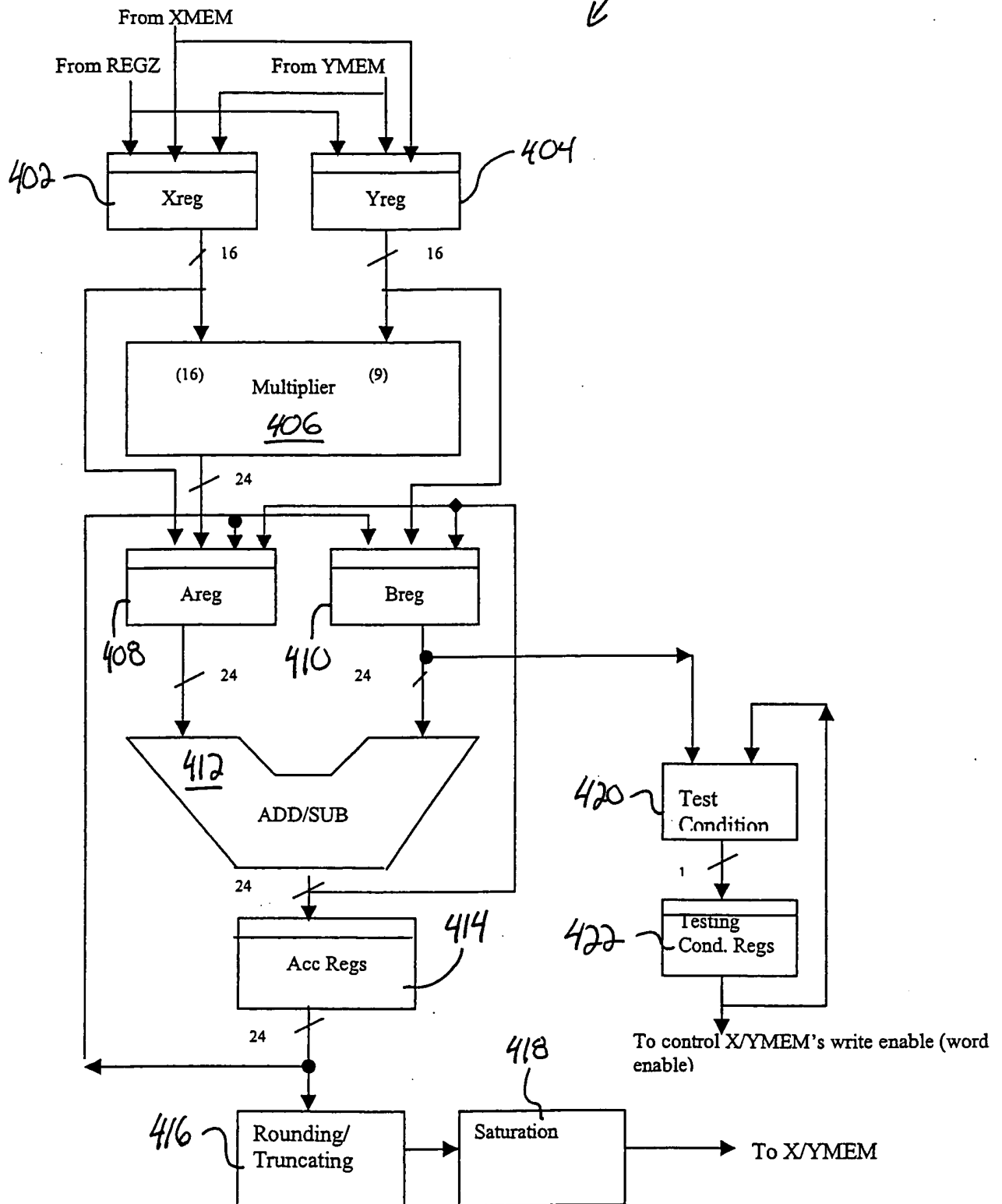


FIG. 4

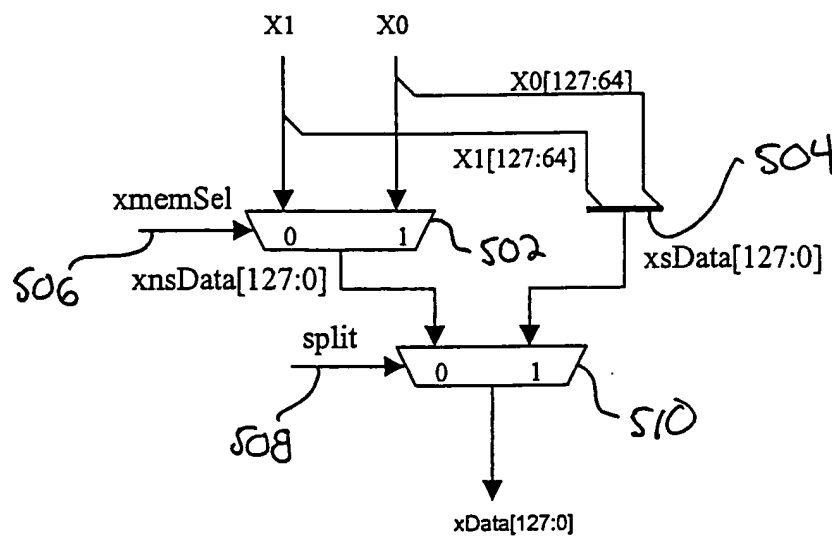


FIG. 5

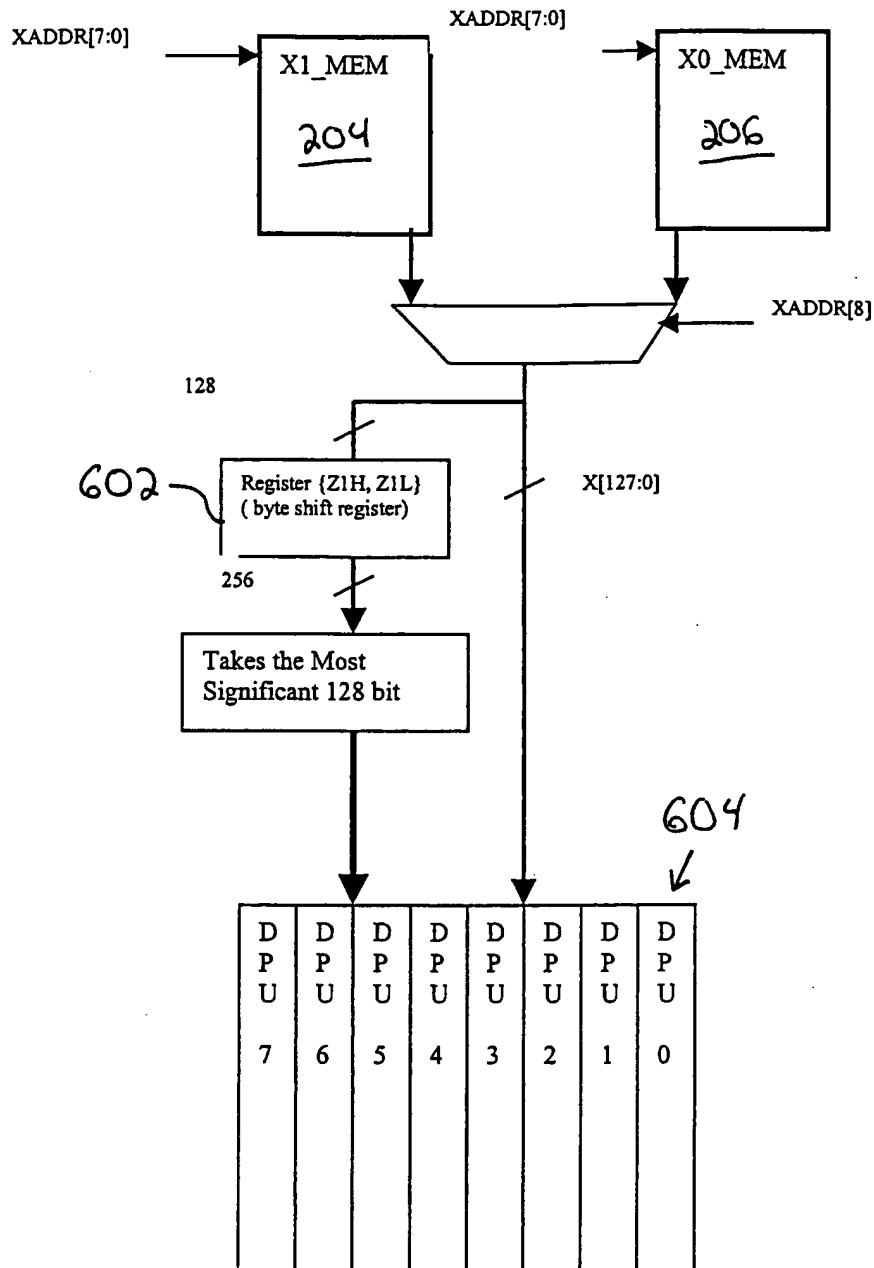


FIG. 6

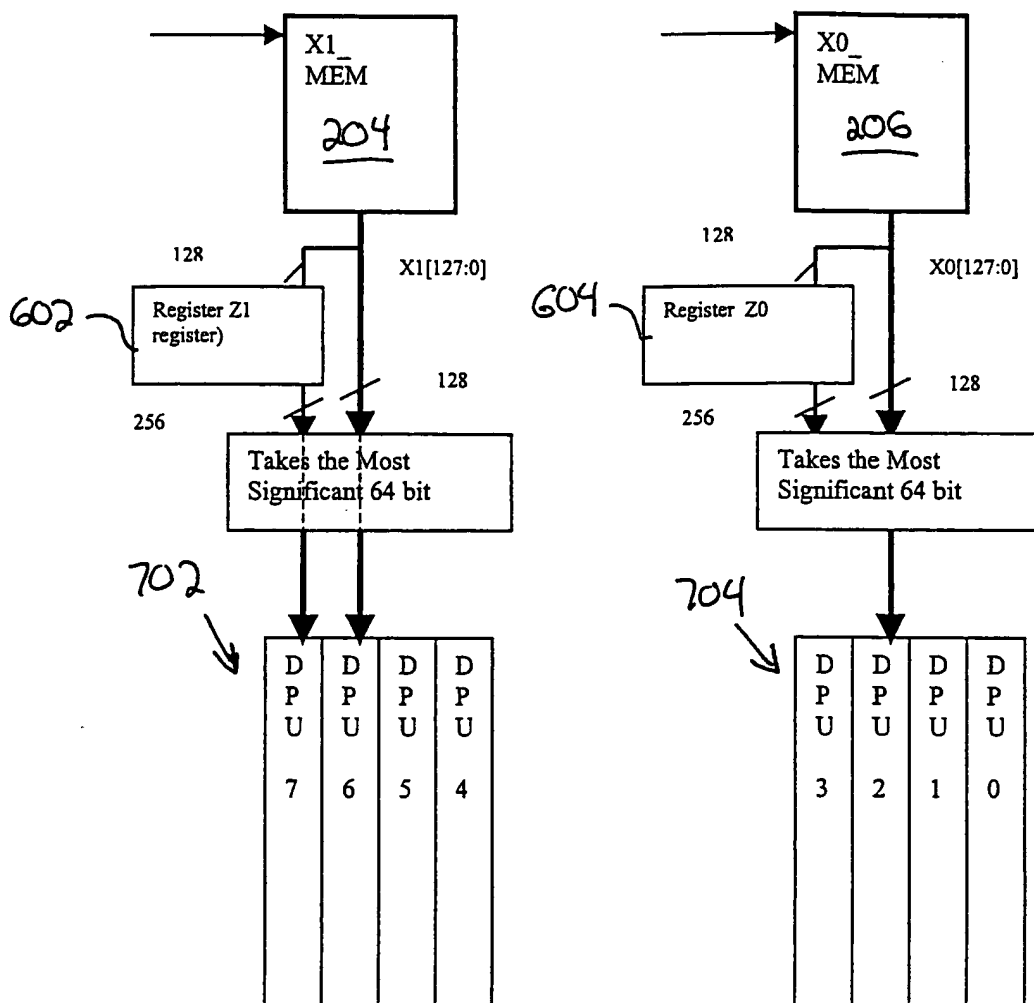


FIG. 7

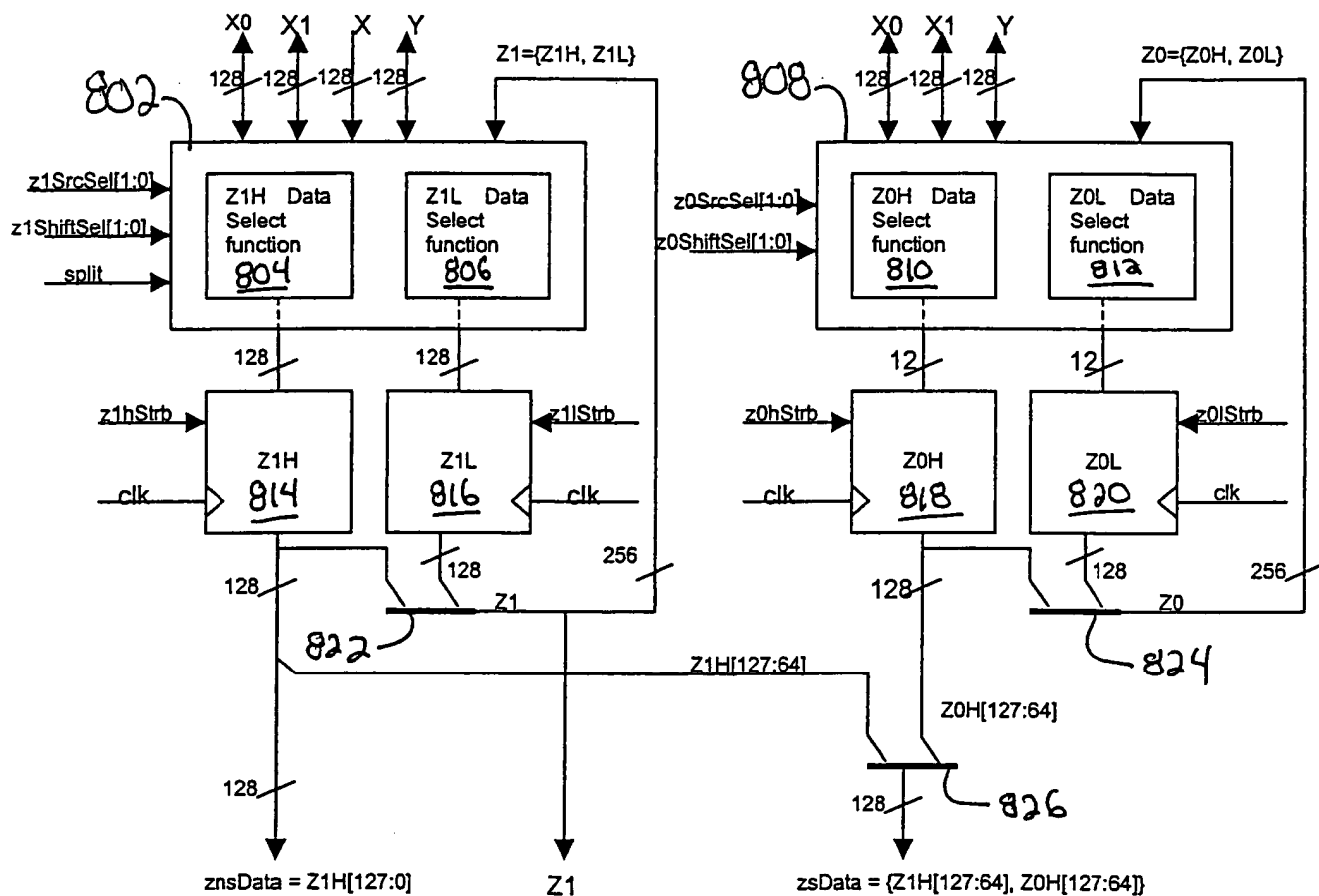


FIG. 8

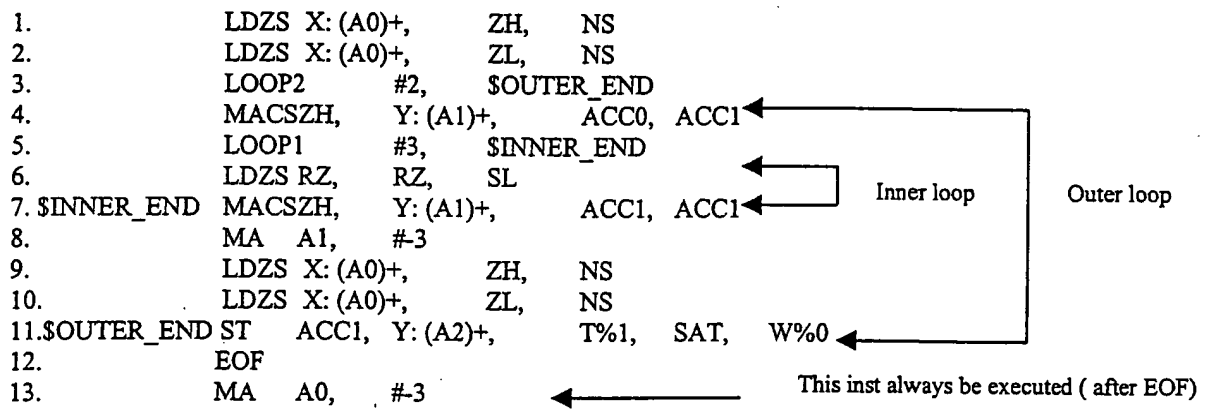


FIG. 9

clk 1	clk 2	clk 3	clk 4	clk 5	clk 6	clk 7	clk 8	clk 9	clk 10	clk 11	clk 12	clk 13	clk 14	clk 15
LDZS	LDZS	LDZS	LDZS	LDZS										
	LDZS	LDZS	LDZS	LDZS	LDZS									
		Loop2	Loop2	Loop2	Loop2	Loop2								
			Macs	Macs	Macs	Macs	Macs							
				Loop1	Loop1	Loop1	Loop1	Loop1						
					LDZS	LDZS	LDZS	LDZS	LDZS					
						Macs	Macs	Macs	Macs	Macs				
							LDZS	LDZS	LDZS	LDZS	LDZS			
								Macs	Macs	Macs	Macs	Macs		
									LDZS	LDZS	LDZS	LDZS	LDZS	
										Macs	Macs	Macs	Macs	Macs

clk 12	clk 13	clk 14	clk 15	clk 16	clk 17	clk 18	clk 19	clk 20	clk 21	clk 22	clk 23	clk 24	clk 25	clk 26
MA	MA	MA	MA	MA										
	LDZS	LDZS	LDZS	LDZS	LDZS									
		LDZS	LDZS	LDZS	LDZS	LDZS								
			ST	ST	ST	ST	ST							
				Macs	Macs	Macs	Macs	Macs						
					Loop1	Loop1	Loop1	Loop1	Loop1					
						LDZS	LDZS	LDZS	LDZS	LDZS				
							Macs	Macs	Macs	Macs	Macs			
								LDZS	LDZS	LDZS	LDZS	LDZS		
									Macs	Macs	Macs	Macs	Macs	
										LDZS	LDZS	LDZS	LDZS	LDZS

clk 23	clk 24	clk 25	clk 26	clk 27	clk 28	clk 29	clk 30	clk 31	clk 32	clk 33	clk 34
Macs	Macs	Macs	Macs	Macs							
	MA	MA	MA	MA	MA						
		LDZS	LDZS	LDZS	LDZS	LDZS					
			LDZS	LDZS	LDZS	LDZS	LDZS				
				ST	ST	ST	ST	ST			
					EOF	EOF	EOF	EOF	EOF		
					MA	MA	MA	MA	MA		
						INST	INST	INST	INST	INST	

INST= (PC=0), if there is no executable function available in the queue;
 INST= the 1st inst of next executable function, if there is executable function available in the Que.

[note]: If the 1st cmd in the queue is "update A0 with "wait" option", the "update A0" command over write the previous MA's result.

FIG. 10